DOCUMENT RESUME

ED 388 027 EC 304 382

AUTHOR	Siegle, Del, Ed.; And Others
TITLE	What Educators Need To Know about...Series. Ability Grouping [and] Curriculum Compacting [and] Gifted Students and Cooperative Learning [and] Mentoring [and] Student Motivation.
INSTITUTION	National Research Center on the Gifted and Talented, Storrs, CT.
SPONS AGENCY	Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE	[94]
CONTRACT	R206R00001
NOTE	22p.; Some pages are very dark and may not copy well.
PUB TYPE	Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Ability Grouping; Acceleration (Education); Classroom Techniques; *Cooperative Learning; Curriculum Development; Educational Methods; Elementary Secondary Education; *Gifted; *Mentors; *Student Motivation
IDENTIFIERS	*Curriculum Compacting

ABSTRACT

Five pamphlets (Practitioner's Guides) present guidelines from the National Research Center on the Gifted and Talented at the University of Connecticut. The guidelines are supported by theory-driven quality research that is problem-based, practice-relevant, and consumer-oriented. Each pamphlet has a section summarizing research from the literature or topic notes as well as identifying specific implications for the classroom. Practitioner's Guides are titled: (1) "What Educators Need To Know about Ability Grouping" (Del Siegle, Editor); (2) "What Educators Need To Know about Curriculum Compacting" (Del Siegle, Editor); (3) "What Educators Need To Know about Gifted Students and Cooperative Learning" (Del Siegle, Editor); "What Educators Need To Know about Mentoring" (Diana Whitton and Del Siegle, Editors); and (5) "What Educators Need To Know about Student Motivation" (Pamela Clinkenbeard and Marcia A. B. Delcourt, Editors). Each pamphlet contains references. (DB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 388 027

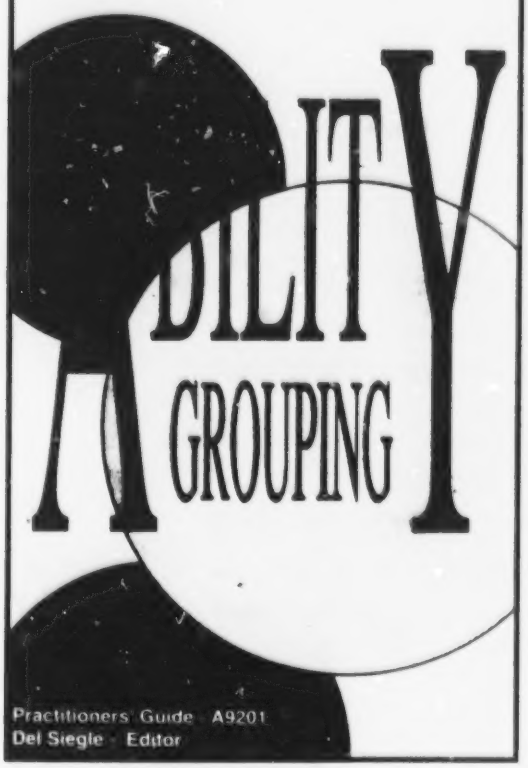
U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

What Educators Need To Know about...Ability Grouping [and] Curriculum Compacting [and] Gifted Students and Cooperative Learning [and] Mentoring [and] Student Motivation.
Siegle, Del. Ed.
And Others

EC 304338

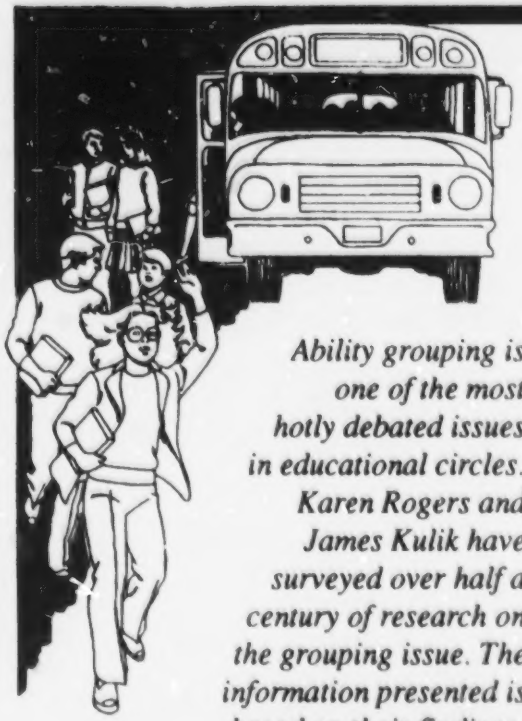
BEST COPY AVAILABLE

What educators need to know about...



Practitioners Guide A9201
Del Siegle - Editor

BEST COPY AVAILABLE



Ability grouping is one of the most hotly debated issues in educational circles. Karen Rogers and James Kulik have surveyed over half a century of research on the grouping issue. The information presented is based on their findings.

IMPLICATIONS FOR THE CLASSROOM

All children do not learn in the same way and at the same pace. Instruction must be modified for students who already know the material or are capable of learning the material more quickly. There are a variety of instructional strategies which can be utilized to meet student needs. Grouping students within the classroom is one method.

Traditionally, elementary teachers have placed students in groups for reading and math instruction. In fact, research shows that over the span of a school year students in ability groups achieve more than students who have not been grouped. When instruction is modified, advances in achievement affect all student groups, not just the high ability students.

At the same time, there is little research evidence to support negative effects to students' self-esteem. Brighter children lose some of their self-assurance when they are placed in classes with equally talented children, while other children gain in confidence when they are taught in classes with similar ability learners. They may feel less overwhelmed and less overshadowed in such classes. The slight loss to bright students is minimal and is not significant.

Grouping and Tracking Are Not the Same

While tracking restricts access to educational opportunities, grouping strategies increase educational opportunities by enabling teachers to provide tailored instruction. With flexible grouping, students are free to move according to their abilities and interests.

Grouping Alone Does Not Ensure Appropriate Instruction

The accumulating research evidence on grouping appears at times to be contradictory. The key to interpreting the studies lies in what happens within the groups. It is not the grouping of students that makes the difference; it is the instructional and educational activities provided. Simply placing students in groups without adjusting instruction and content has little impact. Accordingly, teachers need to adjust the curriculum to match the capabilities of students.

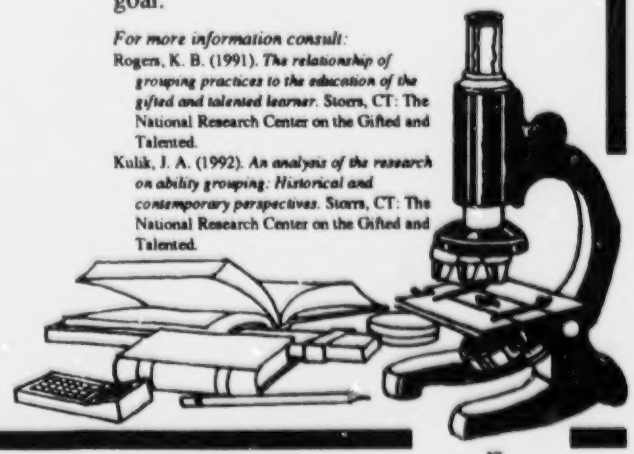
Grouping Can be Organized in a Variety of Ways

Grouping students according to ability is not the only option. Students can be placed in groups according to interests or motivation to work on areas of common interest. Groups can also be formed to utilize the variety of student strengths needed to accomplish a common project or goal.

For more information consult:

Rogers, K. B. (1991). *The relationship of grouping practices to the education of the gifted and talented learner.* Storrs, CT: The National Research Center on the Gifted and Talented.

Kulik, J. A. (1992). *An analysis of the research on ability grouping: Historical and contemporary perspectives.* Storrs, CT: The National Research Center on the Gifted and Talented.



FACTS

Over one school year, high ability students who are grouped together but do not receive modified curricular experiences outperform similar students who have not been grouped by about ***one month****.

Children who are grouped within a class by ability and are provided tailored instruction outperform similar children from mixed classes who are not grouped by ***three or more months****.

High ability students from enrichment classes outperform similar students from conventional classes by ***four to five months****.

Talented students from accelerated classes outperform students of the same age and IQ who have not been accelerated by almost ***one full year****.

Students who are not in high ability groups are not harmed academically by ability grouping and may gain academic ground in some cases.

Ability grouping does not have negative effects on student self-esteem and appears to be slightly positive for lower achieving students.

*Achievement is beyond normal expectations for one school year and is measured on grade-equivalent scales of standardized achievement tests.

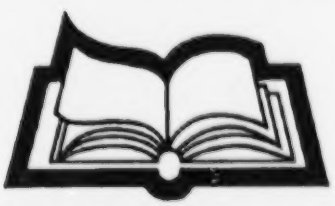
The University of Connecticut
The National Research Center on the Gifted and Talented
362 Fairfield Road, U-7
Storrs, CT 06269-2007

NRC : G/T

Non-Profit Org.
U.S. Postage
PAID
The University of Connecticut

What

educators need to know about...



CURRICULUM

Compacting
Compacting
Compacting
Compacting

Practitioners Guide A9302
Del Siegle Editor

When once the child has learned that four and two are six, a thousand repetitions will give him no new information, and it is a waste of time to keep him employed in that manner.

— J. M. Greenwood
Principles of Education Practically Applied
— 1888 —

IMPLICATIONS FOR THE

Our brightest youngsters are frequently asked to participate in practice exercises or instruction of skills or content they have previously mastered. As classroom teachers, we want to provide curriculum that is adapted to the learning needs, rates, and interests of our above average ability students, but we often do not have the needed planning time or guidelines. Curriculum compacting is a process to "streamline" the grade level curriculum by eliminating material our students have previously learned. In doing so, we challenge our above average ability learners by providing them with time for enrichment or acceleration activities.

Sometimes less is more, particularly with curriculum compacting. Less repetition of previously mastered material can result in more learning for our students. Modifying curriculum is not a new concept. Many educators have been effectively practicing it for years.

Research shows that bright students know a lot more than we anticipate and studies also indicate that teachers can determine instructional objectives and assess whether students have mastered them. When starting a new unit, you can provide students an opportunity to share what they already know. This can be accomplished through an informal discussion or through a written assessment. Most textbook publishers include pretests with their curriculum material. Once you have identified objectives, appropriate assessment techniques can be found or developed.

After the assessment, a list of students who have demonstrated mastery of the objectives can be compiled. A simple grid with the student names down one side and the objectives listed across the top works well. Place an X on the grid under the objectives each student has mastered. By glancing at the grid, you can tell which students know the material you are covering. Start small. Select one unit, in a subject area with which you are comfortable, and begin with two or three students. Basic skills subjects like mathematics and language arts work well. As you become more familiar with the process, you can include more students and expand to other subject areas.

Since the students have demonstrated prior mastery through your assessment, they can then work on more challenging material that interests them. Initially, most teachers find the development of replacement activities the most difficult part of the compacting process. Computer programs, learning centers, and independent study projects work well. Don't be afraid to ask for help. Other teachers have resources you can use. Parents and community members can help and serve as mentors as the students study topics which interest them.

Once students understand the concept of compacting, they will begin taking ownership of their learning. Compacting is a mutually beneficial process. Your students are not repeating material they have already learned and are able to work on more challenging material in their interest areas. You are able to devote instructional time to students who need assistance. Everyone benefits.

BEST COPY AVAILABLE

research

The difficulty level of textbooks has been steadily declining. On the whole, newer copyright dated texts have been "**dumbed down**" with lower readability levels, less difficult questions, and less extensive illustrations.

Farr, R., & Tulley, M. (1985). Do adoption committees perpetuate mediocre textbooks? *Phi Delta Kappan, 66*(7), 467-472.

Seventy-eight to 88% of fifth and sixth grade average readers can pass pretests on basal comprehension skills **before** they are covered in the basal reader.

Taylor, B. M., & Frye, B. J. (1988). Pretesting: Minimize time spent on skill work for intermediate readers. *The Reading Teacher, 42*(2), 100-103.

Students in grades 2-5 encounter approximately 40-65% new content in their math textbooks. Over the course of the school year this equates to new materials only **two or three days** a week.

Flanders, J. R. (1987). How much of the content in mathematics textbooks is new? *Arithmetic Teacher*, 35, 18-23.

When teachers eliminate as much as 50% of the grade level curriculum for gifted students, there is **no difference** in achievement test results.

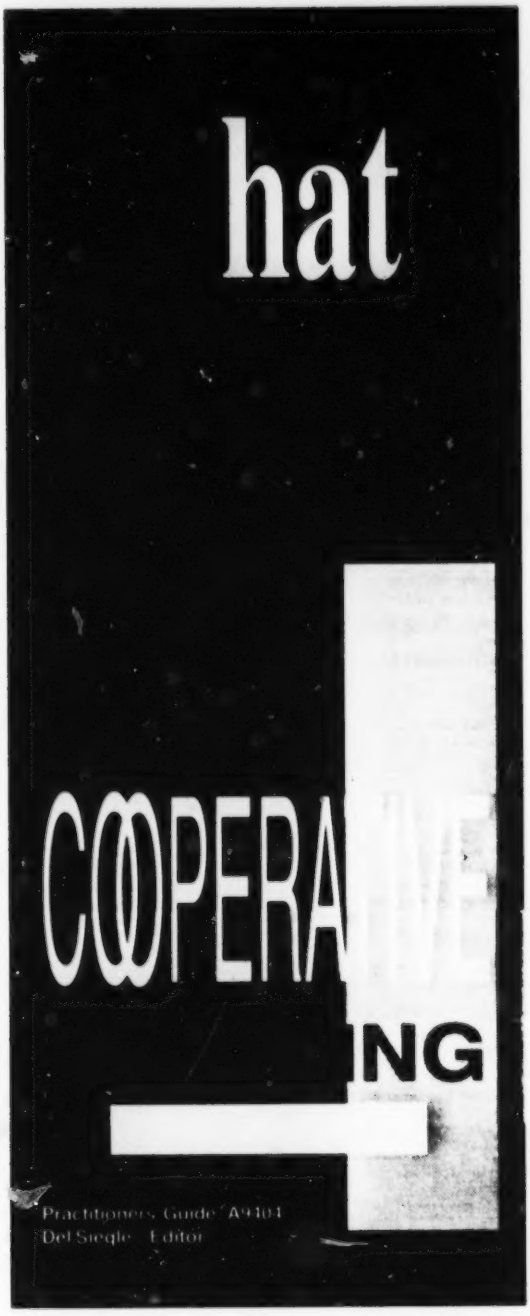
With **minimal training** teachers can effectively identify and eliminate material already mastered by students.

*Reis, S. M., Westberg, K. L., Kulikowich, J., Caillard, F., Hébert, T., Plucker, J., Purcell, J., Rogers, J., & Smist, J. (1992). *An analysis of the impact of curriculum compacting on classroom practices*. Technical Report. Storrs, CT: The National Research Center on the Gifted and Talented.

Non-Profit Org
U.S. Postage
PAID
The University of Connecticut

The University of Connecticut
The National Research Center
on the Gifted and Talented
362 Fairfield Road, U-7
Storrs, CT 06269-2007

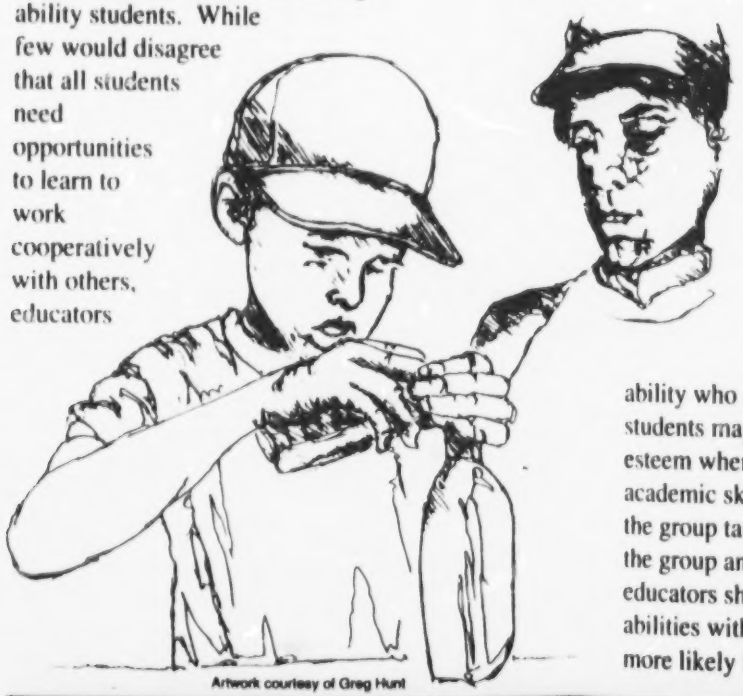
NRC G/T



BEST COPY AVAILABLE

IMPLICATIONS FOR THE CLASSROOM

Cooperative learning is an instructional strategy which should not be used as a replacement for programs for high ability students. While few would disagree that all students need opportunities to learn to work cooperatively with others, educators should not confuse their desire to promote collaboration among students with their desire for students to achieve academically. Cooperative groups are not appropriate for all learning tasks and situations, and some cooperative learning models are more appropriate than others for academically advanced students.



Artwork courtesy of Greg Hunt

> ***"Working cooperatively with others is one valuable goal of schooling. Developing one's personal identity and intellectual independence is another. Schools...must keep both goals in mind."*** – Ann Robinson

Group Composition

The strength of cooperative learning rests with the type of learning task in which students are involved. Students with a variety of talents and academic abilities can be grouped together when the learning task requires a variety of skills. This arrangement provides a setting in which each student can actively contribute to the final product.

Students of average and lower ability who are grouped with higher ability students may experience lower social self-esteem when the group task is limited to the academic skills students bring to the group. If the group task does not afford each member of the group an opportunity to contribute, then educators should limit the range of student abilities within the group so that each student is more likely to be involved.

Content and Pacing

A substantial body of research over the past thirty years indicates that access to advanced materials produces consistent, positive achievement gains for academically talented students. Cooperative learning models which limit curricular content and control pacing should not be used with academically talented students. The group task must be structured so that academically talented students are working with challenging content material involving skills, processes, or products.

Grading

Most academically talented students do not find group work objectionable, but they do object to compensatory group work forced on them when other team members are poorly motivated. Many academically talented students set very high standards for themselves and for others. Completing a group product which does not meet these internally imposed standards may be exceedingly worrisome to such students. While some would argue that compromise is being learned when group products are being graded, compromising one's standards of excellence hardly contributes to positive attitudes regarding cooperation. If group products are to be used with academically talented students, they should be organized in a manner which allows for a student's individual contribution to be recognized.

research

Cooperative learning is not a replacement for programs for gifted students.

Having gifted students in a cooperative group neither helps nor hinders other group members' academic performance.

In general, most students' academic self-concept increases in cooperative learning groups.

When gifted students interact with other students in a cooperative group, it appears that the other students experience a significant decrease in social self-concept.

Average ability children have more negative perceptions of each other when they are grouped with gifted students in cooperative groups. They view each other as less smart, less helpful, and less likely to be leaders than when they are grouped with other average ability students.

A variety of cooperative learning models have been developed and some are more appropriate for gifted students than others.

Information presented in this pamphlet is based on

Kenny, D. A., Archambault, F. X., Jr., & Hallmark, B. W. (1994). *The effects of group composition on gifted and non-gifted elementary students in cooperative learning groups* (Report No. 94108). Storrs, CT: The National Research Center on the Gifted and Talented.

Robinson, A. (1991). *Cooperative learning and the academically talented student* (Report No. 9106). Storrs, CT: The National Research Center on the Gifted and Talented.

What is the NRC/GT?

The National Research Center on the Gifted and Talented (NRC/GT) is funded under the Jacob K. Javits Gifted and Talented Students Education Act, Office of Educational Research and Improvement, United States Department of Education. The mission of the NRC/GT is to plan and conduct theory-driven quality research that is problem-based, practice-relevant, and consumer-oriented.

Products available from The National Research Center on the Gifted and Talented...

Research-Based Decision Making Series
These papers are designed to advise practitioners and policymakers about the most defensible practices that can be implemented based on accumulated research evidence. Papers in the Research-Based Decision Making Series are available in full length and executive summary formats.

Research Monographs
Research Monographs describe research studies completed by the NRC/GT. These comprehensive technical reports are available in full length and executive summary formats.

Practitioners' Guides
These tri-fold brochures feature easy-to-understand research findings coupled with practical implications for classrooms and homes on topics of interest to educators and parents.

Video Training Tapes
One-hour tapes are available on all our popular teacher training satellite broadcasts. Reproducible teacher resource guides are included with each tape.

Resource Booklets
These include information on various topics or sources of information in the field of gifted and talented education.

Collaborative Research Studies
Applied or action research is featured rather than a review of extant literature. They are available as full length papers and executive summaries.

The University of Connecticut
The National Research Center on the Gifted and Talented
362 Fairfield Road, U-7
Storrs, CT 06269-2007

BEST COPY AVAILABLE

IMPLICATIONS FOR THE LEARNING ENVIRONMENT

"If I have seen farther, it is by standing upon the shoulders of giants."

– Sir Isaac Newton

NOTES

- The goal in any mentoring process is the combination of practical experience and intellectual challenge for the mentee through the cooperation of the school, family, and mentor.
- The benefits of a mentor relationship for a student are both personal and academic. The relationship encourages students to pursue their interests at advanced levels.
- Mentoring programs expand the options available for students by utilizing community resource people to share content beyond the conventional classroom curriculum.
- In a 22-year study of 212 young adults, E. Paul Torrance found that those who worked with mentors completed a larger number of years of education and earned more adult creative achievements than peers who did not have mentors.

What is the NRC/GT?

The National Research Center on the Gifted and Talented (NRC/GT) is funded under the Jacob K. Javits Gifted and Talented Students Education Act, Office of Educational Research and Improvement, United States Department of Education. The mission of the NRC/GT is to plan and conduct theory-driven quality research that is problem-based, practice-relevant, and consumer-oriented.

Products available from The National Research Center on the Gifted and Talented...

Research-Based Decision Making Series

These papers are designed to advise practitioners and policymakers about the most defensible practices that can be implemented based on accumulated research evidence. Papers in the Research-Based Decision Making Series are available in full length and executive summary formats.

Research Monographs

Research Monographs describe research studies completed by the NRC/GT. These comprehensive technical reports are available in full length and executive summary formats.

Practitioners' Guides

These tri-fold brochures feature easy-to-understand research findings coupled with practical implications for classrooms and homes on topics of interest to educators and parents.

Video Training Tapes

One-hour tapes are available on all our popular teacher training satellite broadcasts. Reproducible teacher resource guides are included with each tape.

Resource Booklets

These include information on various topics or sources of information in the field of gifted and talented education.

Collaborative Research Studies

Applied or action research is featured rather than a review of extant literature. They are available as full length papers and executive summaries.

NRC G/T

The University of Connecticut
The National Research Center on the Gifted and Talented
362 Fairfield Road, U-7
Storrs, CT 06269-2007

What educators need to know about... student MOTIVATION

Practitioners' Guide - A9509
Pamela Clinkenbeard and
Marcia A. B. Delcourt - Editors

Series Editor

IMPLICATIONS FOR THE CLASSROOM

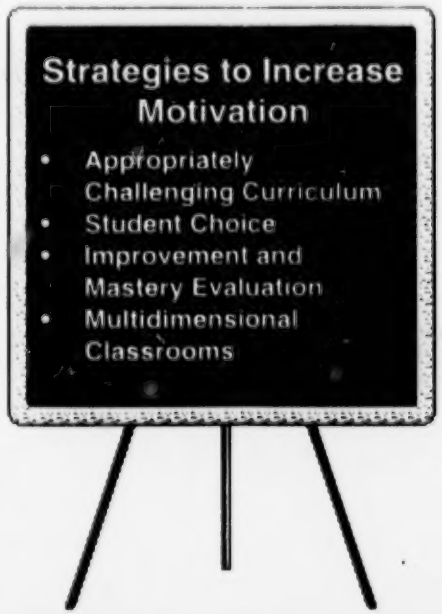
Why do many gifted students seem to do just what is necessary to get by, while others enthusiastically embrace new challenges?

Most studies of motivation contrast intrinsic (or internal) motivation with extrinsic (or external) motivation. Intrinsic motivation is at work when students are engaged in something that interests and challenges them. They might enjoy the task so much that they lose track of time. Extrinsic motivation refers to work that is completed in order to gain something other than the pleasure of the task itself; for example, teacher approval, a high grade, or a prize.

Both intrinsic and extrinsic motivation can lead to high achievement. However, students who are intrinsically motivated are more likely to find learning meaningful, to prefer challenging tasks, to focus on the task rather than how well other students are doing, and to feel satisfied with their performance. Students who are extrinsically motivated are more likely to work their hardest only when there is some incentive present, and are more likely to worry about their performance compared to other students.

What can classroom teachers do to increase intrinsic motivation?

Several classroom practices can enhance students' intrinsic motivation. Students need to be offered tasks and projects that are appropriately ***challenging***. This can be accomplished through curriculum compacting, allowing students access to material beyond their designated grade level, and assigning independent research projects. Students also need some voice and ***choice*** in what and how they learn. This may mean that the teacher incorporates students' interests into class material, lets students select which of several assigned tasks they wish to do first, and allows students to choose how they present projects. Teachers need to evaluate student work for improvement and ***mastery***, rather than just relative performance. This may mean giving two grades for some work, one for effort and one for performance. It may also be accomplished through portfolio assessment, where students can see clearly whether they are improving over time or whether they are simply collecting easy "A"s. Finally, intrinsic motivation may be enhanced in a non-competitve, ***multidimensional*** classroom, where all students do not do the same thing at the same time. While some students work with the teacher, others may work in small groups, and still others work independently at learning centers or in the library. When students learn in multidimensional classrooms they are less likely to compare their performance to that of other students, and less likely to be distracted from the task by comparing grades.



—topic— NOTES

Motivation, as seen through student persistence and intense interest in a chosen subject area, plays an important role in understanding what contributes to giftedness.

- Several classroom practices can affect whether students will be motivated intrinsically. These include offering appropriately challenging tasks and projects, giving students a voice in what and how they learn, evaluating student work for improvement and mastery, and creating multidimensional classrooms.

- Students from gifted programs feel more capable than average achieving students to make their own judgements regarding classroom activities.

- Placing limited emphasis on competition and norm-referenced evaluation minimizes stigmatization of high achieving students as being "different" and makes it more likely that they will be working at an appropriate level. This de-emphasis also increases the opportunity for successful experiences among the other students.

What is the NRC/GT?

The National Research Center on the Gifted and Talented (NRC/GT) is funded under the Jacob K. Javits Gifted and Talented Students Education Act, Office of Educational Research and Improvement, United States Department of Education. The mission of the NRC/GT is to plan and conduct theory-driven quality research that is problem-based, practice-relevant, and consumer-oriented.

Products available from The National Research Center on the Gifted and Talented...

Research-Based Decision Making Series

These papers are designed to advise practitioners and policymakers about the most defensible practices that can be implemented based on accumulated research evidence. Papers in the Research-Based Decision Making Series are available in full length and executive summary formats.

Research Monographs

Research Monographs describe research studies completed by the NRC/GT. These comprehensive technical reports are available in full length and executive summary formats.

Practitioners' Guides

These tri-fold brochures feature easy-to-understand research findings coupled with practical implications for classrooms and homes on topics of interest to educators and parents.

Video Training Tapes

One-hour tapes are available on all our popular teacher training satellite broadcasts. Reproducible teacher resource guides are included with each tape.

Resource Books

These include information on various topics or sources of information in the field of gifted and talented education.

Collaborative Research Studies

Applied or action research is featured rather than a review of extant literature. They are available as full length papers and executive summaries.

NRC G/T

The University of Connecticut
The National Research Center on the Gifted and Talented
362 Fairfield Road, U-7
Storrs, CT 06269-2007